UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,078	11/03/2003	Brian Michael Bridgewater	A01463	3734

21898 7590 09/25/2007

ROHM AND HAAS COMPANY
PATENT DEPARTMENT
100 INDEPENDENCE MALL WEST
PHILADELPHIA, PA 19106-2399

EXAMINER	
RONESI, VICKEY M	
ART UNIT	**PAPER NUMBER**
1714	

MAIL DATE	DELIVERY MODE
09/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/700,078	BRIDGEWATER ET AL.	
	Examiner	Art Unit	
	Vickey Ronesi	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 August 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7 and 10-15* is/are pending in the application.

4a) Of the above claim(s) *10-14* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 8/24/2007 has been entered.

2. The outstanding 35 USC 103 rejection over claim 1 has been withdrawn in light of applicant's arguments filed on 8/24/2007.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

Claim Rejections - 35 USC § 102/103

4. Claims 2-5 and 7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Friel (US 5,731,377, cited on IDS dated 5/20/2004).

It is noted that claim 2 is a product-by-process claim where the phrase starting with "said emulsion polymer is formed by emulsion polymerization..." on line 7 until the end of the claim is not a claim limitation. Case law holds that "even though product-by-process claims are

limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Friel discloses a polymer blend useful as a binder in aqueous coating composition comprising no volatile organic solvent (col. 11, line 50); 40-80 wt % of a soft polymer having a T_g less than about 15 °C (preferably -5-10 °C); and 20-60 wt % of a hard emulsion polymer having a T_g greater than about 20°C (preferably 25-65 °C) (col. 12, lines 1-22), wherein the composition has a pigment volume concentration of 23.65 % (col. 10, line 13). Friel exemplifies the use of two soft polymers (Sample 3 and Sample 7) where *Sample 3* contains 97 wt % butyl acrylate and methyl methacrylate (i.e., monoethylenically unsaturated nonionic (meth)acrylic monomer), 2 wt % methacrylic acid (i.e., monoethylenically unsaturated acid monomer), and 1 wt % ureido-containing adhesion promoting monomer (i.e., aldehyde reactive group-containing monomer) and *Sample 7* contains 59 wt % butyl acrylate and methyl methacrylate, 2 wt % methacrylic acid, and 1 wt % ureido-containing adhesion promoting monomer (Table 1 on column 7, col. 8, line 30-35). Additionally, see Table 1 for amounts of initiator (ammonium persulfate) and neutralizer (sodium carbonate).

In light of the above, it is clear that Friel anticipates the presently cited claims.

Alternatively, given that the final products appear to be the same, it would have been obvious to one of ordinary skill in the art to obtain the presently claimed product with a different process.

Claim Rejections - 35 USC § 103

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Friel (US 5,731,377, cited on IDS dated 5/20/2004).

The discussion with respect to Friel in paragraph 4 above is incorporated here by reference.

With respect to PVC, Friel only exemplifies one painting composition and therefore only explicitly discloses one value for PVC, nonetheless, it teaches that the amount of pigment affects the glossiness or mat of the resulting coating (col. 1, lines 44-48).

It is the examiner's position that the amount of pigment and therefore the PVC is a result effective variable because changing it will clearly affect the type of product obtained, e.g., a coating with a mat or glossy finish. See MPEP § 2144.05 (B). Case law holds that "discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art." See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

In view of this, it would have been obvious to one of ordinary skill in the art to utilize a higher content of pigment including that within the scope of the present claim so as to produce desired end results, i.e., a less glossy finish.

6. Claims 1 and 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friel (US 5,731,377, cited on IDS dated 5/20/2004) in view of Ishikawa (US 4,325,856).

The discussion with respect to Friel in paragraph 4 above is incorporated here by reference.

With respect to claims 1, 3-5, and 7, Friel fails to disclose the use of 0.001-0.5 moles of chain transfer agent.

Ishikawa discloses aqueous copolymer latexes prepared by emulsion polymerization and teaches that conventional chain transfer agents are used to regulate molecular weight of polymers and are preferably used in aamounts of 0.1-1 wt % based on the amounts (which roughly converts to 0.005-0.05 mol/kg monomer when using n-dodecyl mercaptan as the chain transfer agent and acrylic acid as the monomer).

Given that it is common in the art to utilize chain transfer agents to control molecular weight (and thus properties such as viscosity) as taught by Ishikawa, it would have been obvious to one of ordinary skill in the art to utilize a chain transfer agent in the presently claimed amounts in order to control molecular weight.

With respect to claim 6, Friel only exemplifies one painting composition and therefore only explicitly discloses one value for PVC, nonetheless, it teaches that the amount of pigment affects the glossiness or mat of the resulting coating (col. 1, lines 44-48).

It is the examiner's position that the amount of pigment and therefore the PVC is a result effective variable because changing it will clearly affect the type of product obtained, e.g., a coating with a mat or glossy finish. See MPEP § 2144.05 (B). Case law holds that "discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art." See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

In view of this, it would have been obvious to one of ordinary skill in the art to utilize a higher content of pigment including that within the scope of the present claim so as to produce desired end results, i.e., a less glossy finish.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Friel (US 5,731,377, cited on IDS dated 5/20/2004) in view of Ishikawa (US 4,325,856) and further in view of Bricker (US 5,502,089).

The discussion with respect to Friel and Ishikawa in paragraph 6 above is incorporated here by reference.

Friel fails to disclose the use of sulfoethyl methacrylate or phosphoethyl methacrylate but teaches that monomers include conventional ethylenically unsaturated monomers typically used in the preparation of polymeric latex binders for use in coatings (col. 5, lines 32-35).

Bricker discloses a latex composition useful in coating compositions and teaches that monomers with phosphonate or sulfonate groups (e.g., phosphoethyl methacrylate and sulfoethyl methacrylate) can be used to provide crosslinking sites on the polymeric backbone (col. 2, lines 7-15).

Given that Friel is open to the use of other conventional ethylenically unsaturated monomers and further given that Bricker teaches that phosphoethyl methacrylate and sulfoethyl methacrylate are used to provide crosslinking sites, it would have been obvious to one of ordinary skill in the art to utilize phosphoethyl methacrylate and sulfoethyl methacrylate in order to facilitate crosslinking the composition to form a coating.

Response to Arguments

8. Applicant's arguments filed 8/24/2007 have been fully considered but they are not persuasive. Specifically, applicant argues (A) that the addition of a chain transfer agent results in

a product different from a product not prepared with a chain transfer agent and (B) that data established a criticality for the process in the present product-by-process claims.

With respect to argument (A), the examiner agrees. Therefore, new grounds of rejection have been set forth above to address this issue.

With respect to argument (B), as discussed in the Examiner's Answer and in the Board's Decision, the data is not reasonably commensurate in scope with the scope of the claims.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

9/18/2007
Vickey Ronesi

/Vasu Jagannathan/
Supervisory Patent Examiner
Technology Center 1700